REMARKS

Claims 1, 8, 16, 23, 31 and 38 have been amended.

Claims 46 – 51 have been canceled without prejudice or disclaimer of the subject matter thereof.

Claims 1 - 45 are present in the subject application.

In the Office Action dated April 24, 2003, the Examiner has rejected claims 1 – 51 under 35 U.S.C. §103(a). Favorable reconsideration of the subject application is respectfully requested in view of the following remarks.

The Examiner has rejected claims 1 – 5, 7 – 12, 15 – 20, 22 – 27, 30 – 35, 37 – 42 and 45 – 51 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,959,627 (Duwaer et al). Initially, claims 46 – 51 have been canceled without prejudice or disclaimer of the subject matter thereof. Accordingly, the rejection with respect to these claims is moot. Briefly, the Duwaer et al patent discloses a visual user-presentation of a compilation system for multiple visual and/or audio items. The items are each associated with various attributes that each express a category, a value or a label, and through selection among the items a compiled subset of items is produced. The presentation is multidimensional in parallel over the various attributes that each allow selection on a uniform level. Presentation of items that discord with the actual selection are suppressed so that each selection diminishes the multidimensionality of the presentation. A selection of effectivity controls are further displayed.

In contrast, the present invention is directed toward a system, method and data structure (e.g., for encoding in a storage device) for storing a content object in a data repository as a group

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of hierarchically related content entities. Each content entity is contained in a separate file object. A list or outline containing container and non-container identifiers defines the content, order and structure of the content object. This list or outline is stored as a separate file object.

In order to assist in an understanding of the present invention, the present invention features may be illustrated by the following example with respect to generation of a content object in the form of a book. The book structure may include volumes each with one or more chapters, where each chapter, in turn, may include one or more sections. The content of the chapter sections resides in the data repository as individually accessible files each containing a section (or content entity). The present invention system basically represents the book in the form of a hierarchical outline of containers (e.g., representing volumes or chapters) and subordinate non-containers (e.g., sections). The non-containers are each associated with content entity identifiers indicating the files containing the content (or content entities) in the data repository to be included within the corresponding container and book. The hierarchical outline of containers and content entity identifiers is stored as a separate file object. A user interface enables a user to manipulate the outline to select and alter the book content. In other words, a user may construct the book with content (e.g., text, images, etc.) selected from the data repository. When the user adds, removes or moves book content, the corresponding content entity identifier is respectively added, removed or moved within the outline.

This rejection is respectfully traversed since the Duwaer et al et al patent does not disclose, teach or suggest the features of identifier file objects as recited in independent claims 1, 8, 16, 23, 31 and 38 or an outline of containers and content entity identifiers as recited in

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independent claims 8, 23 and 38. However, in order to expedite prosecution of the subject application, independent claims 1, 16 and 31 have been amended to recite the features of an identifier file object containing a list of content entity identifiers, wherein the arrangement of the content entity identifiers within the list corresponds to the content object or work structure and the content entity identifiers are determined by a processing system and the content entity identifiers each including identification information identifying the content file object containing the content entity associated with that identifier. Independent claims 8, 23 and 38 have been amended to recite the features of an identifier file object containing an outline of containers and content entity identifiers defining the content and corresponding to a hierarchical structure of the content object or work, each container representing a hierarchical structure tier and including at least one content entity identifier forming a subordinate hierarchical tier, the content entity identifiers being determined by a processing system, the content entity identifiers each including identification information identifying the content file object containing the content entity associated with that identifier and the presence and position of containers and individual content entity identifiers within the outline being modifiable by a user to alter content of the content object or work.

The Examiner takes the position with respect to the independent claims that the Duwaer et al patent discloses a select tracks tab used for creating a library in the database where the user can select the items for storage, an input track information tab used to specify information for a selection and a compilation creation tab to create a compilation. The Examiner further alleges that the Duwaer et al compilation corresponds to the claimed content object, while the tracks

correspond to the claimed content file objects with the track names identifying the tracks as the claimed content entity identifiers, and that the Duwaer et al patent discloses several button controls to add and remove items from a compilation list and to store the resulting compilation, where the user is prompted to provide a compilation name. With respect to independent claims 8, 16, 23, 31 and 38, the Examiner indicates that the Duwaer et al patent discloses a hierarchical database structure apparently to correspond with the claimed hierarchical outline. The Examiner takes the further position with respect to the independent claims that it would have been obvious to modify the Duwaer et al patent to include an identifier file object and a plurality of content file objects for altering the content and arrangement of the content object to allow a user to add or remove an item for creating a compilation.

This rejection is respectfully traversed since the Duwaer et al patent does not disclose, teach or suggest the above-discussed features recited in independent claims 1, 8, 16, 23, 31 and 38. Rather, the Duwaer et al patent discloses a compilation system with several tabs for system operation. A select tracks tab enables creation of a library of audio items in a database (See Column 2, lines 49 – 50). Fig. 2 of the Duwaer et al patent illustrates presentation of a compact disk to the system in order to copy user specified tracks into the library (See Column 2, lines 56 – 60). The input track information tab enables information to be entered for those tracks selected to be included in the library (See Fig. 3 and Column 2, lines 64 – 67). One of the fields entered includes the track title (See Column 3, line 2). Thus, the track name attribute of the Duwaer et al patent merely indicates the track title and does not include identification information to identify a file object containing the associated track as recited in the claims.

With further reference to the Duwaer et al patent, the compilation creation tab enables selection of items for a compilation (See Figs. 4 – 5 and Column 4, lines 3 – 7). The compilation creation tab provides a display with several attributes and a compilation field of selected individual items with control buttons to add and remove items from the compilation and to save the compilation, where a user is prompted for a compilation name (Column 4, lines 41 – 49). The compilation information is stored across several tables of a database, where each table includes indices or pointers into other tables to obtain additional track information (See Fig. 7 and Column 5, lines 23 – 62). Thus, the Duwaer et al patent does not disclose, teach or suggest an identifier file object with a list or outline of content entity identifiers, wherein the arrangement of the content entity identifiers within the list or outline corresponds to the content object or work structure. In fact, there is no disclosure, teaching or suggestion of the particular order entries are stored in the database tables to indicate compilations or, for that matter, the entries being stored to correspond to the compilation structure as recited in the claims.

In addition, the compilation field of the Duwaer et al patent basically provides a list of individual items (See Fig. 4). There is no disclosure, teaching or suggestion of a hierarchical compilation list or, for that matter, an outline of containers and content entity identifiers with each container representing a hierarchical structure tier and including at least one content entity identifier forming a subordinate hierarchical tier as recited in independent claims 8, 23 and 38. Further, the Duwaer et al patent control buttons do not enable manipulation within the compilation list of hierarchical and corresponding subordinate tiers (e.g., containers and individual content entity identifiers) as recited in the claims. Although the Examiner refers to

the Duwaer et al database as a hierarchical structure, the database includes information for the audio library as well as all compilations that is spread across several database tables, where indices or pointers are utilized to retrieve compilation and other information across those tables. There is no disclosure, teaching or suggestion of an identifier file object with identifiers each including identification information to indicate a corresponding file object containing an identified content entity or the order of the database table entries corresponding to the content object or work structure as recited in the claims. Since the Duwaer et al patent does not disclose, teach or suggest the features recited in independent claims 1, 8, 16, 23, 31 and 38 as discussed above, these claims are considered to be in condition for allowance.

Claims 2 – 5, 7 , 9 – 12, 15, 17 – 20, 22, 24 – 27, 30, 32 – 35, 37, 39 – 42 and 45 depend either directly or indirectly from independent claims 1, 8, 16, 23, 31 or 38 and, therefore, include all the limitations of their parent claims. These claims are considered to be in condition for allowance for substantially the same reasons discussed above in relation to their parent claims and for further limitations recited in the claims.

The Examiner has rejected claims 6, 13 – 14, 21, 28 – 29, 36 and 43 - 44 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,959,627 (Duwaer et al) in view of U.S. Patent No. 5,557,722 (DeRose et al). Briefly, the Duwaer et al patent discloses a visual user-presentation of a compilation system as described above. The DeRose et al patent discloses a data processing system and method for generating a representation of an electronic document, for indexing the electronic document, for navigating the electronic document using its representation and for displaying the electronic document on an output device. The system and method are used

with electronic documents having descriptive markup which describes the content or meaning of the document rather than its appearance. Each markup element defines a node or element in a tree, where the tree is represented by providing a unique identifier for each element and for accessing a descriptor of the element. The element descriptor preferably includes indications of the parent, first child, last child, left sibling, right sibling, type name and text location for the element. The document representation is used to facilitate navigation of the text for constructing navigational aids, such as table of contents, and full text indexing.

The Examiner takes the position that the Duwaer et al patent teaches all the claimed subject matter except for the content object or work being a book and the content entities are one of volumes, chapters and sections (claims 6, 14, 21, 36, 29 and 44) and the content object or work being a book and the containers are one of books, volumes and chapters (claims 13, 28 and 43). The Examiner further alleges that the DeRose et al patent teaches these features and that it would have been obvious to combine the Duwaer et al and DeRose et al patents to attain the claimed invention.

This rejection is respectfully traversed. Initially, claims 6, 13 – 14, 21, 28 – 29, 36 and 43 – 44 depend either directly or indirectly from independent claims 1, 8, 16, 23, 31 or 38 and, therefore, include all the limitations of their parent claims. As discussed above, the Duwaer et al patent does not disclose, teach or suggest the features recited within the independent claims. The DeRose et al patent does not compensate for the deficiencies of the Duwaer et al patent. Rather, the DeRose et al patent discloses generating a representation of an electronic document, indexing the electronic document, navigating the electronic document using its representation
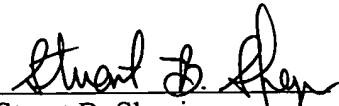
and displaying the electronic document on an output device. In other words, the DeRose et al patent relates to processing of an established document based on a fixed representation of that document as opposed to creation and/or modification of compilations. Since the Duwaer et al and DeRose et al patents do not disclose, teach or suggest, either alone or in combination, the features recited in claims 6, 13 – 14, 21, 28 – 29, 36 and 43 – 44 as discussed above, these claims are considered to be in condition for allowance.

In addition to the foregoing, it would not be obvious to combine the Duwaer et al and the DeRose et al patents to attain the claimed invention. Specifically, the Duwaer et al patent is directed towards a user-presentation of a compilation system as described above. This system is directed towards compilation of audio and/or video items. There is no disclosure, teaching or suggestion of compilation of documents. The DeRose et al patent is directed toward the rendering of an electronic document for navigation, indexing and display as described above. Accordingly, the patents are directed toward diverging applications and there is no reason, suggestion or motivation to combine their teachings. Thus, the proposed combination of the Duwaer et al and DeRose et al patents does not render the claimed invention obvious.

The application, having been shown to overcome issues raised in the Office Action, is considered to be in condition for allowance and Notice of Allowance is earnestly solicited.

Respectfully submitted,

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APPENDIX

The following are the amended claims with markings to show the changes made, where

brackets ('[ ]') indicate removed text and underlining indicates additional text.

--1. (Four Times Amended)   A program storage device readable by a machine, tangibly

embodying a file structure for storing a content object <u>capable of being produced by a processing</u>

<u>system and</u> having a plurality of content entities to facilitate content adjustment, said file

structure comprising:

an identifier file object containing a list of content entity identifiers defining the content

[and arrangement] of the content object<u>, wherein the arrangement of the content entity identifiers</u>

<u>within the list corresponds to the content object structure and the content entity identifiers are</u>

<u>determined by the processing system and placed in the list in response to user selection of</u>

<u>content entities for the content object</u>; and

a plurality of content file objects, each containing a content entity identified by one of the

content entity identifiers contained in said list<u>, wherein the content entity identifiers each include</u>

<u>identification information identifying the content file object containing the content entity</u>

<u>associated with that identifier</u>;

wherein the presence and position of content entity identifiers within said list [is] <u>are</u>

modifiable by [a] <u>the</u> user to alter content and arrangement of the content object without

manipulating the content entities identified by said content entity identifiers.

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8. (Four Times Amended)   A program storage device readable by a machine, tangibly embodying a file structure for storing a hierarchically structured content object <u>capable of being produced by a processing system and</u> having a plurality of content entities to facilitate content adjustment, said file structure comprising:

an identifier file object containing an outline of containers and content entity identifiers defining the content and <u>corresponding to a</u> hierarchical structure of the content object<u>, wherein each container represents a hierarchical structure tier and includes at least one content entity identifier forming a subordinate hierarchical tier, and wherein the content entity identifiers are determined by the processing system and placed in the outline in response to user selection of content entities for the content object</u>; and

a plurality of content file objects, each containing a content entity identified by one of the content entity identifiers contained in said outline<u>, wherein the content entity identifiers each include identification information identifying the content file object containing the content entity associated with that identifier</u>;

wherein the presence and position of containers and <u>individual</u> content entity identifiers within said outline [is] <u>are</u> modifiable by a user to alter content and structure of the content object without manipulating the content entities identified by said content entity identifiers.

16. (Four Times Amended)   A method of producing a user work in the form of a content object capable of being produced by a processing system and having a plurality of content entities each including at least one medium, comprising the steps of:

storing a list of content entity identifiers defining the content [and arrangement] of the work within an identifier file object, wherein the arrangement of the content entity identifiers within the list corresponds to the work structure and the content entity identifiers are determined by the processing system and placed in the list in response to user selection of content entities for the work;

storing the content entities identified by the content entity identifiers within a plurality of content file objects with each content file object containing a content entity identified by one of the content entity identifiers contained in said list, wherein the content entity identifiers each include identification information identifying the content file object containing the content entity associated with that identifier; and

enabling modification of the presence and position of content entity identifiers within said list by a user to alter content and arrangement of the work without manipulating the content entities identified by said content entity identifiers.

23. (Thrice Amended) A method of producing a user work in the form of a content object capable of being produced by a processing system and having a plurality of content entities each including at least one medium, comprising the steps of:

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storing an outline of containers and content entity identifiers defining the content and corresponding to a hierarchical structure of the work within an identifier file object, wherein each container represents a hierarchical structure tier and includes at least one content entity identifier forming a subordinate hierarchical tier, and wherein the content entity identifiers are determined by the processing system and placed in the outline in response to user selection of content entities for the work;

storing the content entities identified by the content entity identifiers within a plurality of content file objects with each content file object containing a content entity identified by one of the content entity identifiers contained in said outline, wherein the content entity identifiers each include identification information identifying the content file object containing the content entity associated with that identifier; and

enabling modification of the presence and position of containers and individual content entity identifiers within said outline by a user to alter content and structure of the work without manipulating the content entities identified by said content entity identifiers.

31. (Four Times Amended)   A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing a file structure for storing a content object capable of being produced by a processing system and having a plurality of content entities, comprising:

a first set of program instructions for creating an identifier file object containing a list of content entity identifiers defining the content [and arrangement] of the content object, wherein the arrangement of the content entity identifiers within the list corresponds to the content object structure and the content entity identifiers are determined by the processing system and placed in the list in response to user selection of content entities for the content object; and

a second set of program instructions for creating a plurality of content file objects, each containing a content entity identified by one of the content entity identifiers contained in said list, wherein the content entity identifiers each include identification information identifying the content file object containing the content entity associated with that identifier;

wherein the presence and position of content entity identifiers within said list [is] are modifiable by a user to alter content and arrangement of the content object without manipulating the content entities identified by said content entity identifiers.

38. (Thrice Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for storing a hierarchically structured content object capable of being produced by a processing system and having a plurality of content entities, comprising:

a first set of program instructions for creating an identifier file object containing an outline of containers and content entity identifiers defining the content and corresponding to a hierarchical structure of the content object, wherein each container represents a hierarchical

structure tier and includes at least one content entity identifier forming a subordinate hierarchical tier, and wherein the content entity identifiers are determined by the processing system and placed in the outline in response to user selection of content entities for the content object; and

a second set of program instructions for creating a plurality of content file objects, each containing a content entity identified by one of the content entity identifiers contained in said outline, wherein the content entity identifiers each include identification information identifying the content file object containing the content entity associated with that identifier;

wherein the presence and position of containers and individual content entity identifiers within said outline [is] are modifiable by a user to alter content and structure of the content object without manipulating the content entities identified by said content entity identifiers.--